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LOGISTICS STUDIES OFFICE

PROJECT NUMBER 027

FINAL REPORT

TRANSITION OF EQUIPMENT FROM
THE ACTIVE ARMY TO RESERVE COMPONENT FORCES

NOVEMBER 1981





U. S. ARMY MATERIEL SYSTEMS ANALYSIS ACTIVITY
LOGISTICS STUDIES CHICE

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This report examines how and why the introduction of displaced equipment from the Active Army into the Reserve Components has an adverse impact on combat readiness. The conclusions are that the United States Army has no standardized methodology for the introduction of equipment into the Reserve Forces, that the overall problem is systemic in nature, and that, while DARCOM cannot solve the systemic problem, actions can be taken to reduce the effects of the problem at the Reserve Component unit level. The report recommends that all major items

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LTC JOHN N. JAEGER

LOGISTICS STUDIES OFFICE
US ARMY MATERIEL SYSTEMS ANALYSIS ACTIVITY
FORT LEE, VIRGINIA 23801



ABSTRACT

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Reserve Component Forces

Study Number: LSO 027

Study Initiator and Sponsor: Director for Readiness (DRCRE-FC)

US Army Materiel Development and Readiness Command

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EXECUTIVE SUMMARY

- 1. Authority for the Study. The sponsor of this study is the Director for Readiness, US Army Materiel Development and Readiness Command (DRCRE-FC).

 Tasking was made by Disposition Form, DRCPA-S, 25 August 1980, subject:

 LSO and PRO Studies.
- 2. <u>Background</u>. The United States Army has embarked upon its most ambitious modernization program in history. There will be in excess of 400 new items of equipment introduced into the inventory between now and 1989. As new equipment is introduced it displaces older equipment which still has a valid military application. The Reserve Component (RC) Forces have historically become recipients of the bulk of this displaced equipment. The United States Army has a systematic process for the introduction of new equipment but no such system is used when displaced equipment is transferred to the Army National Guard and the Army Reserve. Consequently, the RC receive equipment which they are not trained to operate or prepared to maintain. The result of this is reflected in a degradation in combat readiness within the RC. This study reveals:
- a. The difficulties which the RC now experience when they receive displaced equipment are only symptomatic of the overall problem that the US Army is having with the management of force modernization. Force modernization is being managed by several agencies and staff sections with no single entity in charge. Every decision or action which involves the fielding of new equipment influences the Army's ability to identify displaced equipment and affects the availability of that equipment.
- b. The RC receive little or no planning lead time prior to the arrival of equipment. Weapons systems which are incomplete are being issued. Ancilliary

equipment; special tools; and test, measurement, and diagnostic equipment are not issued in adequate quantities and are often received after the arrival of the end item they are to support. All training is left as a unit responsibility and usually is conducted after equipment arrives.

- c. DARCOM acts as an executive agency when equipment is transferred from an active unit to the RC. DARCOM does not have a quality assurance program for these types of transfers; thus, the RC receive equipment which is lacking components and/or basic issue items, and is often non-operational. This results in an unprogrammed expenditure of RC funds.
- d. Major items of equipment which are initially issued to an RC command are in fact new equipment to that command. The impact on the unit receiving the equipment is exactly the same as that of an active unit which receives a first-time issue of new equipment.
- 3. Objectives. This study has two objectives:
- a. To determine the extent and severity of the problems RC currently experience when they receive displaced equipment.
- b. To develop a methodology for the transfer of displaced equipment which will eliminate or significantly reduce these problems.
- 4. <u>Limits and Scope</u>. This study considers the current time period only. It is limited to the impact resulting from the initial transfer of major items or weapons systems to the RC.
- 5. <u>Methodology</u>. The preponderance of the information contained within this report was obtained through interviews conducted at Headquarters, Department of the Army; Office of the Chief Army Reserve; FORSCOM; TRADOC; DARCOM; First US Army; the National Guard Bureau; and various RC units in the First US Army area.

6. Conclusions.

- a. The United States Army has a significant problem in managing force modernization. All Department of the Army staff agencies as well as each Major Army Command contribute to this problem and it cannot be corrected by unilateral actions. Modernization creates displaced equipment and the RC have historically been recipients of this equipment. The RC cannot operate or maintain this equipment because they are not properly prepared for its arriv. The active Army provides little or no planning or assistance to ease the introposition of this equipment into the RC inventory.
- b. Systematic procedures for the fielding of new equipment are in existence and are outlined in several Army Regulations. These procedures include the development of a Mission Support Plan, a Materiel Fielding Plan, and the provision of new equipment training. Each of these procedures can be modified and used when displaced equipment is issued to the RC. All of the problems which the RC now experience when receiving displaced equipment will be eliminated or significantly reduced if these procedures are followed.

7. Recommendations.

- a. All major items of equipment should be treated as new equipment the first time they are issued to an RC command.
- b. Any time a major item of equipment is first issued to an RC command it should be fielded in conjunction with a Mission Support Plan, a Materiel Fielding Plan, and new equipment training as outlined in Annex C of this report.
- c. A modified logistic support analysis update should be conducted and life cycle costs re-examined prior to the transfer of displaced equipment.
- d. DARCOM should establish a quality assurance program to improve the condition of equipment transferred from AC units to the RC.

CHAPTER 1 - INTRODUCTION

1. Background.

- A. Force modernization is a dynamic, evolving process within the United States defense establishment. Changes in mission, tactics, and global commitments, as well as continual technological advances, are the elements which comprise the requirement for modernization. Since the Army is the largest service within the Department of Defense, it stands to reason that it will be the service most affected by modernization.
- B. As technology improves, equipment and weapons systems become more sophisticated, with a drastic increase in unit cost. In addition, the item which is being replaced (displaced equipment) by the new equipment still has some intrinsic value and, in the case of a weapons system, may still have a useful military application. The problem then becomes one of what to do with this displaced equipment. If the displaced item is serviceable but obsolete, it can be demilitarized and sold as surplus. Unserviceable obsolete items will be sold as salvage. Items which are not obsolete and which still have a valid military application become candidates for Foreign Military Sales (FMS) or they are redistributed to the Reserve Components (RC).
- C. The United States Army has a clearly defined procedure for the introduction of newly developed items into the force structure. Items are issued in conjunction with a material fielding plan (MFP) and a mission support plan (MSP). By utilizing these plans, as well as the logistics support analysis (LSA), the Army is assured that personnel, training, repair parts, and facility requirements are met prior to issuing the equipment. These procedures for newly developed items are utilized for both the Active Component (AC) and the RC.

- D. Displaced equipment which is issued to the RC is often the same as "new equipment" to the gaining unit even though it may have been in the active Army inventory for an extended period of time. Unfortunately, the Army does not take this fact into consideration when it issues displaced equipment to the RC and as a result there are no clearly defined procedures which govern these equipment transfers. This report will address the problems associated with the redistribution of displaced equipment into the RC.
- II. <u>Objectives</u>. The purpose of this study is to identify the nature and severity of problems which typically occur when previously fielded equipment (displaced equipment) is newly introduced into RC organizations and to develop a system or methodology to prevent occurrence of the problem or significantly reduce its effect.

III. Limits and Scope.

- A. This study is unclassified.
- B. This study examines the effects of receiving equipment items which are newly introduced into Army National Guard and/or Army Reserve units.
- C. This study restricts itself to examining the impact of transferring major items/weapons systems to the RC.
- D. This study focuses on developing procedures which can be adopted by the US Army Materiel Development and Readiness Command (DARCOM) to eliminate or reduce problems attendant to such transfers.

IV. Methodology.

A. It was determined, from the outset of this study, that there is no existing data base which could be used to either identify or quantify problems relative to the transfer of displaced equipment from the Active Component (AC) to the RC. Furthermore, there are no studies at the Defense Technical Information

Center or the Defense Logistics Studies Information Exchange which are relevant to this problem.

- B. Since there is no historical data or documentation, it was decided that this study would be based on an in-depth research of existing policies and regulations as well as interviews with agencies which participate in the transfer process. These methods were used throughout the study to determine the following elements:
- 1. The dynamics of equipment development from the establishment of requirements, through procurement and production, to acceptance and standardization by the Army.
- 2. The responsibilities and interface between the various agencies involved in the modernization process.
- 3. The policies and procedures which are followed for distribution of new equipment.
 - 4. The planning process for the utilization of displaced equipment.
- 5. The impact, if any, on the readiness of the RC when displaced equipment is introduced into their units.
- C. Once the above elements were determined, it became necessary to determine where disconnects in both the planning and execution occurred which resulted in readiness problems within the RC. This was accomplished by tracing two weapons systems, the M42Al twin 40mm antiaircraft cannon (Duster), which identified historical problems relative to such equipment transfers, and the TOW anti-tank weapons system, which highlights current problems.
- D. Lastly, it became necessary to examine the aspects which are unique to the RC such as geographical dispersion, available training time, limited facilities, and logistics procedures, which differ between the Army National Guard and the Army Reserve.

E. By analyzing all of the information pertaining to the preceding elements and comparing the procedures used in the transfer of displaced equipment to those used during the development and fielding of new equipment, it was possible to identify changes in current procedures which, if implemented, can materially reduce the problems currently associated with transfers of equipment from the active Army to the RC.

V. Problem.

- A. The United States Army has a highly structured procedure for the introduction of new equipment into both the active and RC forces. This procedure begins with the establishment of the Required Operational Capabilities (ROC) at the onset of the developmental phase and continues through actual employment of the equipment to the end of its planned life cycle. These procedures, if followed, will insure that the new equipment item will be both supportable and maintainable throughout its stay in the active Army inventory. To accomplish this, a great deal of consideration is given to personnel, training, facilities, and maintenance requirements during each step of the developmental process. The Army insures that requirements identified during the development of a new item are in place prior to or concurrent with deployment by utilizing a Mission Support Plan (MSP) and a Materiel Fielding Plan (MFP).
- B. The Army does not have a similar procedure for the transfer of displaced equipment from the active to the reserve forces. In many instances items of displaced equipment have reached or are approaching the end of their planned life cycle. The transfer of this equipment in effect extends its life cycle; yet, there are no current provisions to determine what the impact of extending the life cycle will be on the supportability and maintainability of that equipment. There is no current requirement for the utilization of either an MSP or MFP in conjunction with the introduction of displaced equipment into the RC.

As a result, it is not uncommon for quantities of equipment to "just arrive" at the gaining unit without consideration being given as to whether the unit can operate or maintain it. In most instances, required training becomes a unit responsibility and occurs after receipt of equipment. When equipment is issued from a depot, the condition of that equipment is excellent; however, equipment which is shipped to an RC unit directly from an AC unit often arrives in a non-operational state since DARCOM has no provisions for quality assurance. The situation is further aggravated when incomplete systems are received or substitute components are issued as part of a weapons system.

C. The RC forces, for the most part, are comprised of intelligent dedicated individuals who strive to develop combat ready units. Their capabilities are often limited by circumstances which are beyond their control; i.e., location, equipment shortages, limited training time and opportunity, reorganization and constantly changing missions, and facilities which are incompatible to equipment on hand. Unless these very real limitations are recognized and taken into consideration prior to issuing displaced equipment and only complete systems which are both supportable and maintainable are issued, the RC forces will never realize their true readiness capability. The active Army is in fact producing an RC force which will be inadequate to meet the nation's needs during a mobilization, partially because of a lack of proper planning for the transition of displaced equipment.

CHAPTER 2 - FACTS BEARING ON THE PROBLEM

VI. General.

- A. The supply and maintenance systems utilized by both the Army National Guard (ARNG) and the Army Reserve (USAR) are in basic consonance with the active Army. There are some differences in the organization of the ARNG as opposed to the USAR which allows the ARNG more flexibility in dealing with problems generated by the transition of equipment from the active Army into their units. These differences are:
- 1. <u>Budgeting</u>: Both the Director of the Army National Guard Bureau (NGB) and the Office of the Chief Army Reserve (OCAR) appear annually before Congress to obtain Operations and Maintenance Army (OMA) funds for their respective organizations. The funds are appropriated against specific programs which are presented.
- a. The NGB functions as a special staff agency at Department of the Army as well as a Major Command (MACOM). As a MACOM, the NGB disperses OMA funds to the various states and possessions based on their budgetary needs. These funds may only be obligated against the programs which were presented to Congress. The active Army has no influence on the expenditure of these funds once they are appropriated.
- b. OCAR functions as a special staff agency only. Operations and Maintenance Army Reserve (OMAR) funds which are appropriated by Congress to OCAR are turned over to Forces Command (FORSCOM) for administration. FORSCOM can, and often does, change spending priorities without regard to OCAR's original program.
- 2. <u>Supply and maintenance functions</u>: ARNG and USAR units both function within the parameters of established Army supply and maintenance systems, although

execution of the supply and maintenance functions differ significantly between the two organizations.

- a. The ARNG headquarters within each state or possession exercises complete command and control over all ARNG units within that state or possession. In addition, these headquarters perform the functions and provide the support normally associated with an installation. Supply and fiscal administration are performed by the United States Property and Fiscal Officer (USPFO) and maintenance management is performed by the Director of Maintenance.
- (1) Requisitions for supplies are submitted by units through the chain of command to the USPFO. It is the USPFO's responsibility to reconcile authorizations and priorities with funds available. The USPFO enters funded requisitions into the wholesale supply system.
- (2) Direct Support (DS) and General Support (GS) maintenance is provided by Mobilization and Training Equipment Sites (MATES) and Combined Support Maintenance Shops (CSMS) which are located according to equipment density. Many personnel within these facilities are dual slotted, working in civilian positions during the normal work week and as members of the ARNG during Inactive Duty Training (IDT) and Annual Training (AT). Normally, the personnel employed in either a MATES or CSMS belong to an ARNG TOSE maintenance unit and are therefore very responsive to the maintenance needs of the field commanders.
- b. The USAR does not enjoy the same degree of autonomy with the resultant flexibility and responsiveness that the ARNG has. Supply, maintenance and fiscal administration is executed by FORSCOM through the Continental US Armies (CONUSA).
- (1) Supply requisitions are sent by a unit through the USAR chain of command to the General Officer Command (GOCOM) exercising command and control over that unit. Requisitions are either approved or held based on the GOCOM's

priorities and availability of funds. If approved, the requisitions are forwarded to an Active Army support installation for entry into the wholesale supply system.

- (2) DS and limited GS maintenance are provided by Area Maintenance Support Activities (AMSA) which are organized on a geographical location based on equipment density. All job orders must be approved by the support installation prior to maintenance being performed. Most GS maintenance is performed by the support installation which often necessitates the transportation of equipment over a great distance. Once at the support installation, the job must compete with AC maintenance requirements. This results in a system which is far less responsive to the needs of the USAR commander than that of the ARNG. Since no support installation has a DS/GS missile repair capability, these services have to be provided to the USAR by the ARNG in consonance with an inter-service support agreement (ISSA).
- B. RC units are organized according to MTO&Es or TDAs which are similar to those used by the AC. Because of this, planners too often assume that the capabilities of an RC unit are the same as a like AC unit. AC planners must come to grips with the reality that there are many factors, unique to the RC, which limit their capabilities. Some of these factors are: time, distance, facilities, training, and personnel.
- 1. <u>Time</u>: When an AC commander considers a training year, he looks at five days a week, 52 weeks a year, less holidays and support requirements. Conversely, an RC commander only has an average of 39 training days available to him in his training year. The RC commander is further influenced by competition for both his time as well as that of his subordinates caused by civilian employment. Logistical requirements for both AC and RC commanders are identical and do not take into account the disparity of time available.

- 2. <u>Distance</u>: In most instances, at least at battalion level and below,

 AC units are collocated on an installation with their DS/GS supply and maintenance
 support readily accessible. (This will not always be true with GS support
 outside CONUS.) An RC commander may find all of his subordinate units collocated
 in the same Armory/Reserve Center or, just as often, spread out over a wide
 geographical area. It is not uncommon for elements as small as a platoon to be
 located a considerable distance from their parent unit. Unit personnel may have
 to travel outside of the state in which they are located to transact business
 with their support installation. It is readily apparent that the functions of
 time and distance impose severe restrictions on an RC unit's logistical capability.
- 3. Facilities: RC facilities range from excellent, permanent structures to substandard, leased facilities. Regardless of the type of building an RC unit has, there are finite limits on the availability of secure storage, parking, and maintenance space. An RC unit, unlike an AC unit, cannot just fence off part of an existing drill field or parking lot to accommodate additional equipment. Because of these limitations, RC units often must store equipment that is needed for training at remote equipment concentration sites (ECS) or MATES.
- 4. <u>Training</u>: The RC commander, given the required assets, can normally handle tactical training of his unit. The technical training provided to the supply and maintenance personnel is usually a combination of correspondence courses and structured on-the-job training (SOJT) and is generally less than adequate. While the AC commander can rely on MOS qualified replacements from the pipeline, the RC commander cannot. While probably too frequent, MOS changes occur in an RC unit because of unprogrammed losses and to provide promotion opportunities as an aid in retention. The resulting turbulence plus inadequate training result in personnel that are unable to produce either the quantity or quality of work that their AC counterpart does.

- 5. Personnel: The impact of time on the RC commander's logistical capabilities has already been discussed. As a result of the time impact, the assigned logisticians, i.e., supply sergeant, armorer, mechanic, etc., are not available to the unit on a day-to-day basis. The positions of military technician (ARNG) and administrative and supply technicians (AST) within the USAR were created to fill this gap. In the ARNG the military technician is required to be a member of the unit while in the USAR he is not. The purpose of these positions is to provide a continuity of effort on a daily basis. Technicians are hired on the basis of one per 50 unit members. These technicians are expected to maintain personnel records, dental and medical records, pay records and procedures, supply and maintenance records and transactions, plus all other normal unit administrative functions. As a result they become a jack of all trades but master of none. There is also a blurring of the responsibilities between the assigned unit logistician and the technician. Because of the workload and the generalized knowledge of the technician, logistical problems which could be expected to be solved in a matter of days by an AC unit may continue unresolved for many months in an RC unit.
- C. The differences between the ARNG and USAR as well as the factors which determine their capabilities are real. These facts are currently being overlooked or assumed away when decisions are made to introduce an item of equipment which is new to the RC into its inventory.

VII. Distribution planning.

A. All equipment changes in an RC unit are the result of either a reorganization or force modernization. Equipment which is received by the RC unit can be categorized as new equipment, displaced equipment, or modernization items. For the purpose of this study these categories are defined as:

- 1. <u>New equipment</u>: Newly developed equipment which is being fielded for the first time in both the AC and RC, e.g., 915 series trucks.
- 2. <u>Displaced equipment</u>: Equipment which is in use by the AC but becomes excess as a result of new or product improved equipment being fielded, e.g., 40mm antiaircraft cannon (Duster).
- 3. Modernization items: Equipment which results from a Product Improvement Program (PIP). This equipment is normally issued from depots to RC units and may or may not still be in the AC inventory, e.g., M48A5 main battle tank. It must be stressed that regardless of which category the equipment falls into, its arrival at the RC unit has the same effect as the arrival of new equipment at an AC unit.
- B. Displaced equipment is identified during the planning for distribution of new equipment. The Army Force Modernization Coordination Office (AFMCO) was established within the Office of the Chief of Staff, Army, as a coordinating agency for force modernization actions. AFMCO publishes a single source information document called the Army Modernization Information Memorandum (AMIM) to insure timely exchange of modernization information. The AMIM is user oriented and draws input from the material developer, the combat developer, and the military personnel center. Equipment is categorized within the AMIM as:
 - 1. AMIM long and short form systems (major systems less displaced equipment).
 - 2. AMIM displaced systems.
- AMIM abbreviated cost form systems (other than major systems, less displaced equipment).

Distribution plans are developed for all AMIM equipment. The Office of the Deputy Chief of Staff, Operations (ODCSOPS) does the planning for AMIM long and short form systems while the Office of the Deputy Chief of Staff, Logistics (ODCSLOG) has the responsibility for displaced equipment. DARCOM plans for

the distribution of abbreviated cost form systems. Displaced equipment and abbreviated cost form systems are to be distributed by Department of the Army Master Priority List (DAMPL) sequence unless specified otherwise by ODCSOPS. VIII. Factors which influence distribution.

Deviation from the original distribution plans are a common occurrence. Some of the most prevalent reasons for this are: Developmental delays; production delays; reduced appropriations; changes in authorizations; failures to follow DAMPL sequence; and foreign military sales (FMS).

- A. <u>Developmental delays</u> can be caused by a variety of reasons, many of which are beyond the control of the materiel developer. The end result is the slippage of the availability date of displaced equipment.
- B. <u>Production delays</u>, whether caused by slow delivery of needed components, strikes, or lack of skilled labor, have the same effect as developmental delays.
- C. Reduced appropriations result in the Army being unable to purchase quantities originally planned for, thus the difference represents an amount of equipment which will not be displaced and not be available for transfer.
- D. <u>Failure to follow DAMPL sequence</u> in reality affects two units, the one that was planning for the receipt of equipment, and the one that actually gets it.
- E. <u>Foreign military sales</u> is somewhat akin to not following DAMPL sequence. The result is a unit planning on the receipt of equipment and not getting it.

IX. Fielding of equipment in the Reserve Components.

A. The Army has a very systematic process for the deployment of new equipment. Distribution is supported for both AC and RC units by the use of materiel fielding plans (MFP) and mission support plans (MSP). If these plans

are followed, the gaining unit will be assured that Authorized Stockage List (ASL) and Prescribed Load List (PLL) items are in place when the equipment arrives. All ancillary and support equipment, special tools, and Test, Measurement and Diagnostic Equipment (TMDE) will be received in conjunction with the equipment. Operator/crew as well as maintenance training requirements will be met by use of a New Equipment Training Team(NETT). Refer to Annex C for new equipment fielding procedures.

- B. No such system is utilized when displaced equipment or modernization items are issued to the RC. While several Army Regulations address the redistribution of equipment, they are either vague and open to interpretation or simply ignored. Equipment going to an RC unit comes either from a depot or an AC using unit. In each case DARCOM acts as the executive agency for the transfer. Equipment which is sent from a depot is in excellent condition and complete with Basic Issue Items (BII). Equipment which is sent from AC units is often non-operational or incomplete. DARCOM currently has no provisions for providing quality assurance for these transfers.
- C. Because no systems exist to support the transfer of equipment to RC forces, severe readiness problems exist. RC units receive equipment they are not trained to operate or maintain; equipment is often received in a non-operational status and is lacking components or BII; substitute Items are issued which do not meet mission requirements; required TMDE and support equipment are not available; and required publications are often no longer in print.

CHAPTER 3 - EXTENT OF THE PROBLEM

X. General.

- A. The Deputy Chief of Staff Logistics for the First United States

 Army, as well as several USAR and ARNG units within the First Army area, were

 contacted to determine the extent of the problems that reserve units experience

 when they integrate equipment into their inventories. Contact was made both by

 phone and personal visits. The units contacted, without exception, indicated

 that the below listed problems occur when equipment/systems are introduced:
 - 1. Little or no lead time between notification and arrival of equipment.
- 2. Required training usually becomes a unit responsibility and is conducted after the arrival of equipment.
 - 3. Equipment arrives prior to establishment of ASL/PLL.
 - 4. TMDE and special tools are late in arriving or not available.
- 5. Incomplete systems are fielded causing a degradation of combat readiness.
- Equipment which comes from AC units is often incomplete and in poor condition.
 - 7. Substitute items often do not meet mission requirements.
- B. This study focused on RC units within the First US Army area because of proximity. The Department of Army Inspector General conducted a similar study of RC units within the Fifth US Army area and discovered that the same problems are prevalent there. The single overriding factor behind these problems is failure on the part of the Active Army to realize that displaced equipment or modernization items issued to RC units for the first time have the same impact as new equipment going to AC units. These problems will continue until

the same planning process that is used for the fielding of new equipment is used for the transition of displaced equipment into the RC.

C. The extent of these problems is highlighted by examining two systems within the RC. The M42Al Duster is examined as an example of displaced equipment and the M22OAl TOW anti-tank system as an example of a modernization system.

XI. M42Al Duster.

A. <u>Background</u>: The Duster was developed and fielded during the early 1950's as the primary division level anti-aircraft defense weapon for the Army. It is basically a twin 40mm anti-aircraft cannon mounted on the M41 tank chassis. With continued sophistication of threat aircraft it became apparent that the Duster would not be able to satisfy anti-aircraft defense requirements into the decade of the 60's. The Vulcan-Chaparral air defense weapons systems were developed and produced to counter the everchanging air threat. The Army's goal was to produce enough Vulcan-Chaparral systems to equip all Anti-aircraft Defense Artillery (ADA) battalions to include the eight ARNG battalions. As Vulcan-Chaparrals were produced and deployed to active Army units, Dusters were displaced and the decision was made to issue them to the ARNG as an interim system until adequate numbers of Vulcan-Chaparrals were available for the total force. This decision, as can best be determined, occurred in the early 60's. As of now the ARNG is still equipped with the Duster as its primary ADA weapon.

B. Chain of events:

1. The Vulcan-Chaparral was completely deployed in active units in 1965. Once complete deployments had been accomplished, the Duster was type classified as obsolete. Based on the change in type classification, the following actions took place:

- a. The Duster program of instruction (POI) at the ADA school was terminated.
- b. No further procurement actions were undertaken for system peculiar repair parts.
- c. ARNG units were issued additional Dusters, beyond their authorizations, as sources of repair parts through cannibalization. These additional items were not accountable on property books.
- 2. The NGB recognized that a need for a Duster POI still existed. The Duster POI was re-established at the ADA school, utilizing ARNG funds and personnel. It remains in existence to this date.
- 3. During the Vietnam war the Army established a need for the Duster in a ground support role. The Duster was type classified from obsolete to contingency and a limited number were introduced into Vietnam.
- 4. The decision was made not to procure additional Vulcan-Chaparrals but to develop a new system, the Division Anti-aircraft Defense (DIVAD) system.

 The Dusters currently in the ARNG battalions would then be replaced by Vulcan-Chaparrals as they were displaced by the DIVAD.
- 5. The New Mexico National Guard was to receive the first Vulcan-Chaparrals in CY 81-82.
- C. The situation today: Slippage of production of the DIVAD has resulted in DA notifying NGB that the Duster will remain in the inventory until 1989.

 Based on this, NGB has identified 644 class IX repair parts which will be required to maintain the Duster in FY 82. 124 lines belong to ARRCOM, 268 to TACOM and the remainder to DLA. 27 of the lines belonging to ARRCOM are no longer available. TACOM indicates that the Duster will not be supportable through 1989 due to the lack of parts for the chassis. There are no additional

Dusters available for cannibalization. NGB reports that its current OR rate is 70% and this is expected to continually drop because of non-availability of repair parts.

XII. The M220Al TOW.

- A. <u>Background</u>: The TOW anti-tank weapons system falls into the definition of a modernization item rather than displaced equipment. This system was introduced into the RC in FY 78. Even though this system was not new to the AC, it was new to the RC. Visits were made to the DCSLOG, 1st US Army, USPFO for the Commonwealth of Virginia, 116th SIB Virginia Army National Guard, 79th Army Reserve Command (ARCOM) at Willow Grove, PA, and the 157th SIB, USAR at Horsham, PA. The purpose of these visits was to determine if any problems developed as a result of the introduction of the TOW. While some of the problems which were identified were common to both the ARNG and the USAR, there were enough differences to warrant addressing each organization separately. In both instances many of the identified problems still exist and they create serious question as to the combat readiness of the units involved.
- B. <u>Problems relative to the Army National Guard</u>: The ARNG overall experienced three basic problems as a result of receiving the TOW. These are: training, receipt of TMDE, and receipt of incomplete weapons systems.
- 1. <u>Training</u> needs for the tactical employment of the TOW were left to the unit. In most, if not all, instances this was accomplished by coordination between AC and ARNG units after receipt of the TOW. Training of maintenance personnel presented the ARNG with a unique set of problems. Both TO&E maintenance personnel in the unit and civilian maintenance personnel in the MATES and CSMS needed DS/GS missile maintenance training. This problem was compounded by the introduction of the field test set which was not an item in the

- AC. Because the field test set was new, there was no POI which the ARNG could rely on to train their maintenance personnel. NGB had to enter into a contract with Hughes Aircraft to provide the required training. The funds to support this contract were an unprogrammed requirement and were absorbed by the NGB.
- 2. TMDE. There are three critical items of TMDE which are required to perform verification checks on the TOW. They are: the Land Combat Support System (LCSS), the Contact Support System (CSS) and now the Field Test Set (FTS). No additional LCSSs will be procured because of the cost and it was never an intention to issue any to the ARNG. The verification functions performed by the LCSS, with the exception of some optics work, can be accomplished by the FTS. It was for this reason that the FTS was procured and issued together with the CSS. The ARNG has 104 of 143 authorized CSS and 42 of 148 required FTS on hand. Conversation with MICOM personnel indicate that pursuant to recent DA guidance, ARNG MTOE authorizations for the FTS and CSS had been reduced and assets of the FTS now equal requirements. This in effect means that FTSs which were originally scheduled to reduce shortages in the ARNG will now go to AC units which also have access to the LCSS. TOW trainers, while not a TMDE item, are essential in the training of TOW crews. The arrival of trainers did not match the pace of the weapons and was not in any direct relationship to the receipt of the weapons. At this time, three years after the initial TOW issues, the ARNG has not received all its authorized trainers.
- 3. Incomplete systems: The problem of incomplete systems resulted from a conscious NGB decision to accept equipment as soon as it became available.

 Although the TOW weapon itself was available in sufficient quantities, the vehicles, wiring harnesses, and installation kits needed for complete systems were in short supply. The rationale for the decision was based on the justifiable

fear that "you either take equipment when it's offered or it goes somewhere else." The ARNG currently has 1,668 complete systems out of 2,076 authorized. Until this imbalance is corrected, they must continue to store, maintain, and train on two unrelated anti-tank systems, the TOW and the 106mm Recoiless Rifle.

- C. <u>Problems relative to the USAR</u>: There is an interesting situation within 1st US Army which consists of a training problem in conjunction with incomplete systems which has resulted in a separate infantry brigade being without any anti-tank capability since 1979. There are three USAR SIBs in the 1st Army area. Only one of these brigades is mechanized, that being the 157th SIB in Horsham, PA. The mechanized brigade requires the TOW mounted on the M113A1 personnel carrier; the other two brigades utilize the TOW mounted on the M151 1/4-ton truck. The problems as well as the final results are:
- 1. <u>Training</u>: 1st Army DCSLOG properly identified the requirements to train DS/GS maintenance personnel, both civilian and military (Reservists), and arranged with the ARNG for necessary quotas. For a variety of reasons only personnel from the 79th ARCOM, 157th's parent unit, received the training.

 Based on this fact, 1st Army DCSLOG directed that only the 157th Brigade be issued the TOW and that the fielding of TOWs into the other two brigades be suspended until the required training was accomplished. MICOM shipped the correct number of TOWs to the 157th SIB. CECOM shipped the appropriate number of wiring harnesses for the M113A1 personnel carriers which, by MTO&E, were to be issued as carriers for the TOW. At this time TACOM determined that M113A1s were not available and issued M151 1/4-ton trucks as substitute items. This decision had two unfortunate results for the 157th SIB:

- a. The 1/4-ton truck does not have the same capabilities as an M113A1 and thus is not an adequate substitute.
- b. Radio communication is a subsystem which is required for an operational TOW system. An installation kit is needed for the 1/4-ton truck to accommodate the communications subsystem. The 157th Brigade requisitioned the installation kits. Since the M113A1 wiring harnesses appeared on The Army Authorization Documents (TAADS) and the installation kits did not, the requisitions were rejected. The 157th Brigade then requested an MTO&E change to drop the wiring harnesses and pick up the installation kits. This request was denied by FORSCOM. The problem was further compounded by the fact that the 157th Brigade had been directed to turn in its 106mm Recoiless Rifles upon receipt of the TOWs. This was done and the net result has been that this brigade has had no anti-tank capability since 1979.
- D. Both the ARNG and USAR indicate that equipment which is shipped from a depot arrives in excellent condition and with all publications as well as basic issue items. Items which are received from AC units do not approach this standard. For instance, eleven out of sixteen M561 1 1/4-ton trucks (Gamma Goat) received from Fort Hood, Texas, were non-operational when they arrived, had less than 50% of the required publications, and were short numerous basic issue items. The unit became aware that they would receive the Gamma Goats when they arrived in the motor pool. In another occurrence, M113Als were received without wiring harnesses and inter-communications systems.
- E. The above examples are the rule rather than the exception and the trends which have developed are equally applicable to both the ARNG and the USAR. Even though the ARNG logistics system allows them more flexibility for resolution of these problems than does that of the USAR, both organizations suffer from a

drastic reduction in combat readiness because of the lack of a logical methodology to transition equipment into the RC.

CHAPTER 4 - FINDINGS, CONCLUSIONS, AND RECOMMENCATIONS

- XIII. <u>Findings</u>. An analysis of the policies, procedures, problems, and situations which currently affect the transition of equipment from the AC to the RC provides the following findings:
- A. The overall problem is systemic in nature and will not be resolved by the actions of a single command. The US Army currently has many agencies and staff elements attempting to manage modernization but no single entity is charged with overall management responsibility. Management decisions are sometimes made on the basis of information derived from ADP systems such as: Basis of Issue Plans (BOIP); Total Army Equipment Distribution Plan (TAEDP); or, The Army Authorization Documents System (TAADS). The data contained in these systems is often incomplete and inaccurate. The problem is further mitigated by the number of weapons systems which are managed "off line." Congressional appropriations for the support of acquisition programs are unpredictable. Continual changes in levels of appropriations result in expansion and contractions of planned procurements. Program managers must constantly reorder their spending priorities and too often impose contraints on the logistics support effort in the interests of economy. Consequently, the Army is fielding equipment in a haphazard manner and is not able to accurately identify equipment which will be displaced.
- B. There is no standard methodology for the introduction of equipment/
 weapons systems into the RC. Equipment is sent to the RC with little or no
 planning lead time. A logistics support analysis update is not performed for
 displaced equipment. There is no established procedure for extending the life
 cycle for an item of equipment and identifying cost factors attendant to such
 an extension. Materiel fielding plans, mission support plans, and new equipment
 training are not initiated when displaced equipment is issued to the RC.

- impact as new equipment does on the AC. Operator/crew as well as maintenance training is essential. ASL and PLL must be identified, funded, and processed. Publications must be on hand in sufficient quantities. Existing facilities may have to be upgraded or additional facilities obtained to accommodate the equipment. A collateral effort must be initiated to turn in equipment which will become excess once the new equipment arrives. The unique characteristics of RC organizations preclude their responding to these challenges with the same capabilities as those of an AC unit.
- D. The lack of methodology adversely affects the RC in training, funding, supportability, and maintainability. The result is a degradation of combat readiness.
- E. DARCOM has no quality assurance program for the transfer of equipment from an AC unit to the RC. It is the AC unit's responsibility to upgrade equipment to a ready for issue status prior to shipment to the RC. The AC unit must provide both the manpower and funds required to accomplish this requirement.

 DARCOM is the executive agency for the transfer of equipment but restricts itself to handling the required documentation. There is no disinterested agency which inspects equipment prior to shipment to insure maintenance requirements are met. RC units receive equipment from the AC which is incomplete and often non-operational.

XIV. Conclusions.

A. Modernization of the Army has accelerated greatly within the last few years. This will increase in the future years as there are in excess of 400 new items to be introduced into the Army inventory between now and 1989. The problem which the Army faces is the management of modernization. The

magnitude of the modernization process is so great that it is placing an unbearable strain on existing management systems and subsystems which are rapidly reaching the breaking point. The problem is system to an acture in that each MACOM as well as the DA staff is a contributor.

- B. This study addresses only a small segment of the problem: how to manage the transition of displaced equipment into the RC. Disp aced equipment is the ultimate by-product of modernization. While the Army has a systematic procedure for the introduction of new equipment into the inventory, no such system exists to facilitate the transition of displaced equipment into the RC. The Army has failed to come to grips with the reality that any major item of equipment has the same effect on an RC unit as new equipment has on an AC unit.
- c. Because the Army does not plan and execute the transfer of displaced equipment as it does new equipment, RC units are experiencing unnecessary problems with a concurrent degradation of combat readiness. They are receiving equipment with little or no notice; incomplete systems are being issued; required training is left as a unit responsibility and is often accomplished after equipment arrives; equipment is being issued which is at or near the end of its life cycle and therefore becomes increasingly difficult to maintain.
- D. While DARCOM cannot solve the overall problem of modernization management, there are unilateral actions which can be taken to reduce if not eliminate the adverse situation faced by the RC today. This can be done by considering all major items of displaced equipment as new equipment and using the procedures which are currently in existence to ease their transition into the RC. Specifically, DARCOM should conduct a modified LSA and re-examine life cycle costs of displaced items to insure that initial rebuild, initial provisioning, and annual operational and support costs are within existing funding constraints before the items are issued to the RC. Mission support plans and

material fielding plans should be developed to insure supportability, eliminate surprises, and field complete systems. The condition of equipment which is shipped directly from an AC unit to the RC can be improved if DARCOM takes an aggressive role in establishing a quality assurance program, and in effect becomes the "honest broker" for such transfers. Such a program will insure that equipment is complete and in a ready-for-issue condition prior to shipment. This could be accomplished by contracting with the installation maintenance facility to perform required maintenance and then billing the costs back to the losing command. Last, but certainly not least, new equipment training is essential to provide the RC unit with the capability of both employing and maintaining the equipment.

XV. Recommendations.

- A. All major items of displaced equipment should be treated as new equipment the first time they are issued to an RC command.
- B. Any time a major item of equipment is first issued to an RC command it should be fielded in conjunction with a mission support plan, a material fielding plan, and new equipment training as outlined in Annex C of this report.
- C. A modified logistic support analysis update should be conducted and life cycle costs re-examined prior to the transfer of displaced equipment.
- D. DARCOM should establish a quality assurance program to improve the condition of equipment transferred from AC units to the RC.

ANNEX A

BIBLIOGRAPHY

- 1. AR 71-2, Basis of Issue Plan, 19 April 1976.
- 2. AR 220-1, <u>Unit Status Reporting</u>, 15 June 1978 (with interim Change 1, 4 December 1979).
- 3. AR 310-34, Equipment Authorization Policies and Criteria, and Common Tables of Allowances, 24 February 1975.
- 4. AR 310-49, The Army Authorization Documents System (TAADS), 10 June 1975.
- 5. AR 350-35, New Equipment Training, 1 November 1981.
- 6. AR 700-120, Materiel Distribution Management for Major Items, 1 April 1981 (with draft Chapter 5, undated).
- 7. AR 700-127, Integrated Logistic Support, 1 May 1981.
- 8. DA Pamphlet 11-25, <u>Life Cycle System Management Model for Army Systems</u>, May 1975.
- 9. Interim Note No. F-16, <u>TOW Missile System Maintenance Guidelines</u>, United States Army Materiel Systems Analysis Activity, September 1975.
- 10. Study, <u>Impact on DARCOM of Nonstandard MTOE</u>, John R. Lenassi, USALMC, Logistics Studies Office, March 1981.
- 11. Study, <u>Implementation of Change (IC)</u>, CAA-SR-80-5, US Army Concepts Analysis Agency, June 1980.
- 12. Study, Management of Change (MOC), CAA-SR-77-7, US Army Concepts Analysis Agency, June 1980.
- 13. TAEDP User's Guide, Total Army Equipment Distribution Program, January 1980.

ANNEX B

GLOSSARY OF ACRONYMS

AC Active Component(s)

ADA Anti-aircraft Defense Artillery

ADP Automated Data Processing

AFMCO Army Force Modernization Coordination Office

AMIM Army Modernization Information Memorandum

AMSA Area Maintenance Support Activities

AR Army Regulation

ARCOM Army Reserve Command

ARNG Army National Guard

ARRCOM Armament Materiel Readiness Command

ASL Authorized Stockage List

AST Administrative and Supply Technician

AT Annual Training

Bil Basic Issue Items

BOIP Basis of Issue Plan

CECOM Communications and Electronics Command

CONUS Continental United States

CONUSA Continental United States Army

CSMS Combined Support Maintenance Shops

CSS Contact Support System

DA Department of the Army

DAMPL Department of the Army Master Priority List

DARCOM US Army Materiel Development and Readiness Command

DIVAD Division Anti-aircraft Defense

DLA Defense Logistics Agency

DS Direct Support

ECS Equipment Concentration Site

FMS Foreign Military Sales

FORSCOM Forces Command

FTS Field Test Set

FY Fiscal Year

GOCOM General Officer Command

GS General Support

IDT Inactive Duty Training

ILS Integrated Logistic Support

ISSA Intra-Service Support Agreement

LCSS Land Combat Support System

LSA Logistics Support Analysis

LSAR Logistics Support Analysis Record

MACOM Major Army Command

MATES Mobilization and Training Equipment Sites

MFP Materiel Fielding Plan

MICOM Missile Command

MOS Military Occupation Specialty

MSP Mission Support Plan

MTO&E Modified Table of Organization and Equipment

NET New Equipment Training

NETT New Equipment Training Team

NGB National Guard Bureau

OCAR Office of the Chief Army Reserve

ODCSLOG Office of the Deputy Chief of Staff Logistics

ODSCOPS Office of the Deputy Chief of Staff Operations

OMA Operations and Maintenance Army

OMAR Operations and Maintenance Army Reserve

PIP Product Improvement Program

PLL Prescribed Load List

POI Program of Instruction

RC Reserve Component(s)

ROC Required Operational Capabilities

SIB Separate Infantry Brigade

SOJT Structured On-the-Job Training

TAADS The Army Authorization Document System

TAEDP Total Army Equipment Distribution Plan

TACOM Tank Automotive Command

TAG The Adjutant General

TDA Table of Distribution and Allowances

TMDE Test, Measurement, and Diagnostic Equipment

TOSE Table of Organization and Equipment

USAR United States Army Reserve

USPFO United States Property and Fiscal Officer

ANNEX C

DEVELOPMENT AND DEPLOYMENT OF NEW EQUIPMENT

1. General.

- a. The United States Army utilizes an evolutionary process for modernization of its forces. There is a complex inter-relationship between advancing technology as demonstrated in new and improved equipment and changes in strategic and tactical doctrine. Changes in doctrine together with new equipment result in modernization.
- b. A highly structured management process has been devised to optimize the capabilities and effects of equipment or weapons systems when they are deployed. The management process consists of numerous Automated Data Processing (ADP) support systems and subsystems which are utilized from the establishment of the ROC through all developmental, acquisition, and fielding phases to the ultimate disposition of the item of equipment upon completion of its useful life cycle.
- c. No attempt will be made to examine all of the management systems and subsystems which are involved in the material development process. There are, however, segments of the process which, if modified, could serve to reduce or eliminate some of the problems attendant to the introduction of displaced equipment into the reserve forces. These segments of the management process will be developed in greater detail within this Annex.
- 2. Integrated Logistic Support (ILS) Program. ILS, as stated in AR 700-127, is a systematic program used to "identify, plan, acquire, develop, test, evaluate, and refine" all logistical support requirements during the material acquisition process. ILS begins at milestone 0 in the developmental process and continues

throughout the equipment life cycle. A key element of ILS is the Logistic Support Analysis (LSA). Properly done, the LSA will develop the required logistic support for the developing system. The results of the LSA are documented in the Logistics Support Analysis Record (LSAR). LSA continues for the entire life cycle of the equipment. There is currently no procedure wherein the information and data developed by the LSA is re-examined when an item of equipment is selected for transfer to the RC. It would appear that if this were done, along with examining the impact of extending the life cycle of an item of equipment, many of the problems now associated with maintainability would be overcome.

- 3. <u>Mission Support Plan (MSP)</u>. The MSP is developed by the user to identify the "intended maintenance and supply support structure and levels for a deployed item as well as the preferred method of shipment." It is used by the equipment developer to "compute procurement amounts of support material to include repair parts, assemblies, tools, training devices, and test equipment for all levels of maintenance." If this plan were to be developed for equipment going to the RC, most if not all of the current supportability problems would be eliminated.
- 4. <u>Materiel Fielding Plan (MFP)</u>. The MFP is a detailed plan, prepared by the equipment developer, for the deployment for each new or product improved maintenance significant item. This plan will usually contain:
- a. A description of the total material system as well as density and shipment fielding dates. It will include support equipment requirements.
- b. A description of logistic support procedures to be followed before, during, and after fielding.
- c. A listing of services the fielder will provide during deprocessing to include new equipment training.

d. A discussion of the resource impact of the material system which the user can expect to experience.

This is not an all inclusive list of the contents of a MFP but keys on those areas which historically cause the RC the greatest amount of difficulty. If used, this plan should eliminate the fielding of incomplete systems and preclude the element of surprise which occurs too often within the RC during these transactions. If the system being introduced is complex in nature, a material fielding team may be in order. Provisions for utilizing these procedures exist in Chapter 5, paragraph 5-2d(2), AR 700-127 dated 1 May 1981.

5. New Equipment Training (NET). NET is provided by the equipment developer to the user by means of a New Equipment Training Team (NETT). The NETT may be either DA or civilian contractor personnel or a combination thereof. NETTs train a cadre of user personnel who then in turn provide the training to the remainder of the unit. AR 350-35 dated 1 Nov 81 provides the guidance for NET but specifically excludes the NG and USAR from its provisions. If the provisions of this AR were expanded to include both the NG and USAR and made applicable to displaced equipment/modernization items, there would be a dramatic improvement in the RC units capability to adequately employ and maintain that equipment.

